NATIONAL RECOVERY ADMINISTRATION

DIVISION OF REVIEW

E V I D E N C E   S T U D Y

NO. 13

OF

THE FISHERY INDUSTRY

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THE EVIDENCE STUDY SERIES

The EVIDENCE STUDIES were originally planned as a means of gathering evidence bearing upon various legal issues which arose under the National Industrial Recovery Act.

These studies have value quite aside from the use for which they were originally intended. Accordingly, they are now made available for confidential use within the Division of Review, and for inclusion in Code Histories.

The full list of the Evidence Studies is as follows:

1. Automobile Manufacturing Ind.
2. Boot and Shoe Mfg. Ind.
3. Bottled Soft Drink Ind.
4. Builders' Supplies Ind.
5. Chemical Mfg. Ind.
6. Cigar Mfg. Industry
7. Construction Industry
8. Cotton Garment Industry
9. Dress Mfg. Ind.
10. Electrical Contracting Ind.
11. Electrical Mfg. Ind.
12. Fab. Metal Prod. Mfg., etc.
13. Fishery Industry
14. Furniture Mfg. Ind.
15. General Contractors Ind.
16. Graphic Arts Ind.
17. Gray Iron Foundry Ind.
18. Hosiery Ind.
19. Infant's & Children's Wear Ind.
20. Iron and Steel Ind.
21. Leather
22. Lumber & Timber Prod. Ind.
23. Mason Contractors Industry
24. Men's Clothing Industry
25. Motion Picture Industry
26. Motor Bus Mfg. Industry (Dropped)
27. Needlework Ind. of Puerto Rico
28. Painting & Paperhanging & Decorating
29. Photo Engraving Industry
30. Plumbing Contracting Industry
31. Retail Food (See No. 42)
32. Retail Lumber Industry
33. Retail Solid Fuel (Dropped)
34. Retail Trade Industry
35. Rubber Mfg. Ind.
36. Rubber Tire Mfg. Ind.
37. Silk Textile Ind.
38. Structural Clay Products Ind.
39. Throwing Industry
40. Trucking Industry
41. Waste Materials Ind.
42. Wholesale & Retail Food Ind. (See No. 3
43. Wholesale Fresh Fruit & Veg.

In addition to the studies brought to completion, certain materials have bee assembled for other industries. These MATERIALS are included in the series and are also made available for confidential use within the Division of Review and fc inclusion in Code Histories, as follows:

44. Wool Textile Industry
45. Automotive Parts & Equip. Ind.
46. Baking Industry
47. Canning Industry
48. Coat and Suit Ind.
49. Household Goods & Storage, etc.(Droppec
50. Motor Vehicle Retailing Trade Ind.
51. Retail Tire & Battery Trade Ind.
52. Ship & Boat Bldg. & Repairing Ind.
53. Wholesaling or Distributing Trade

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Foreword

The Industry to which the NRA Fishery Code applied differed considerably in scope from the Fishery Industry as commonly understood. It not only covered the primary production or catching of fish and shellfish -- the fisheries in the ordinary sense -- but it also, in its original form, included all processing of fishery products and the specialized wholesale trades that distribute the latter when fresh or frozen.

The salmon, tuna, oyster, shrimp and clam products canning industries, and the less important processors of fish oils and oyster shells, petitioned out of the jurisdiction of this master code. The data presented in this report, however, apply, for the most part, to the Industry in the original and broader sense, as it was not practicable to eliminate those relating to the excluded branches.

Unless otherwise stated, the data in the report relate to the Continental United States and Alaska. The Fishery Code also applied to Puerto Rico and Hawaii; but the absence of figures for the two latter territories does not affect the picture materially.

To facilitate the presentation, the Industry has been divided into two main parts -- the Primary Producing Division and the Processing and Wholesaling Division. Most of the data have been taken from the annual bulletins of the Bureau of Fisheries, entitled, Fishery Industries of the United States. Other sources are referred to also, however, and the author has supplied some estimates, with indications of the manner in which they were made. Full explanations would have encumbered the study unnecessarily.

FISHERY INDUSTRY

Chapter I

Nature of the Industry

The Fishery Industry was defined in the Code of Fair Competition as follows:

"The term 'fishery industry' or 'industry' includes:
The catching or taking from the water -
The cultivating -
The farming and other artificial propagation (except the propagation of goldfish and tropical fish) -
The processing -
The wholesaling, if, but only if the handler or distributor has also done the processing -
of fish and all other commercial products of aquatic life in both salt and fresh water, as carried on in the several States, the District of Columbia, the several Territories of the United States, the insular possessions or other places under the jurisdiction of the United States; or on United States vessels, wherever the actual taking or processing of such products of the industry by said vessels takes place. The term 'fishery industry' or 'industry' includes also commission merchants trading in products of the industry.

"The term 'processing' means the packing in ice of, filleting of, cutting of, freezing of, salting of, smoking of, drying of, canning of, extracting oil from, manufacturing meal or fertilizer from, products of the industry; or otherwise manipulating products of the industry: Provided However, that the term 'processing' shall not include the refining of oils from products of the industry; the manufacture of mixed feeds or mixed fertilizer from products of the industry; or the manufacture of products obtained from shells, fish scales, sponges, sounds, skins, hides, bones, aquatic plants, ambergris, cuttlefish bone, and whalebone.

"The terms 'wholesale' and 'wholesaling' mean the handling or distributing, except by a carrier for hire, of products of the industry to distributors or to retail outlets, including institutions, hotels, restaurants, and other public eating places, whether or not such retail outlets are actually or legally controlled by the member of the industry performing such handling or distributing."

This definition refers to many sub-divisions of the Fishery Industry, 1/ but for the purposes of this report it was felt sufficient to take account of the two broad divisions mentioned in the Foreword: (1) the Primary Producing Division, or that part of the Industry that catches the fish and shellfish; and (2) the Processing and Wholesaling Division, or the part that prepares the catch for the market and distributes it to retailers, or sometimes direct to consumers.

1/ A complete list of divisions and sub-divisions of the Industry is given in the Appendix.

Number of Establishments

Primary Producing Division. - In the Primary Producing Division of the Fishery Industry the nearest equivalent of an "establishment" is a vessel or boat. In this connection a vessel, which is defined by the Bureau of Fisheries as a craft having a capacity of five net tons or more, may be considered a relatively large establishment; a boat, being defined as a craft of less than five tons, is a small establishment. The number of fishing vessels and boats in the United States and Alaska in recent years, with separate figures for ten principal states and for Alaska, are shown in Table I.

Processing and Wholesaling Division. - The number of processing and wholesaling establishments in operation in the United States and Alaska in recent years, as reported by the Bureau of Fisheries, is given in Table II, with a breakdown by ten principal states and Alaska. For 1929 the number of establishments engaged primarily in processing and the number engaged primarily in wholesaling are shown separately. This is the only recent year for which such separate figures are available.

The processing establishments covered by Table II include a considerable number which did not operate under the Fishery Code proper. This applies to the canning of salmon, tuna, clam products, oysters, and shrimp, the crushing of oyster shells, and the processing of fish oil.

TABLE I

Number of Fishing Vessels a/ and Boats, b/
by 10 Principal States and Alaska

State	1929		1931		1933 c/		1934 d/
	Vessels	Boats	Vessels	Boats	Vessels	Boats	Vessels
Total, U.S. and Alaska	4,367	79,065	4,181	72,482	3,735	68,563	4,000
California	443	1,927	426	1,822	385	1,720	401
Florida	114	6,615	119	5,698	99e/	5,274e/	103
Louisiana	103	2,305	89	2,002	64e/	1,570e/	f/
Maine	79	5,823	78	3,900	74	3,919	f/
Maryland	267	5,776	194	6,627	154	5,596	160
Massachusetts	438	3,815	418	4,272	378	4,044	394
New Jersey	366	2,162	335	1,952	211	1,857	f/
Oregon	44	2,484	27	2,136	33	2,229	f/
Virginia	139	7,639	126	7,548	133	7,935	139
Washington	312	3,348	437	2,791	511	2,572	533
Alaska	690	5,253	582	4,960	507	4,218	636
Total, 10 States and Alaska	2,995	47,047	2,881	43,708	2,549	40,925	----
Total, Other States	1,372	32,018	1,300	28,774	1,186	27,638	----

Sources: Bureau of Fisheries, Fishery Industries of the United States.

a/ A vessel is defined by the Bureau of Fisheries as a craft having a capacity of five net tons or more.

b/ A boat is defined by the Bureau of Fisheries as a craft having a capacity of less than five net tons.

c/ Included in the 1933 total are 1932 figures for the South Atlantic and Gulf and the Great Lakes areas, and 1931 figures for the Mississippi River area.

d/ The number of vessels in 1934 is estimated by the author of this report. It is not practicable to estimate the number of boats.

e/ 1932 figures.

f/ Not available.

TABLE II

Number of Fish Processing and Wholesale Establishments, by 10 Principal States and Alaska

State	1929 a/				1931		1933 b/	
	Total, Processing and Wholesale		Processing	Wholesale	Processing and Wholesale		Processing and Wholesale	
	Number	Per Cent of Total			Number	Per Cent of Total	Number	Per Cent of Total
Total, U. S. and Alaska	2,922	100.0	924	1,998	2,992	100.0	2,831	100.0
California	125	4.3	64	61	147	4.9	145	5.1
Florida	267	9.1	21	246	250	8.4	c/	---
Louisiana	89	3.1	56	33	90	3.0	c/	---
Maine	217	7.4	126	91	157 d/	5.2	131 d/	4.6
Maryland	315	10.8	17	298	342	11.4	308	10.9
Massachusetts	179	6.1	36	143	204	6.8	165	5.8
New Jersey	97	3.3	15	82	109	3.6	124	4.4
Oregon	49	1.7	29	20	56	1.9	57	2.0
Virginia	193	6.6	41	152	222	7.4	194	6.9
Washington	115	3.9	76	39	113	3.8	111	3.9
Alaska	262	9.0	262	e/	226	7.6	224	7.9
Total, 10 States and Alaska	1,908	65.3	743	1,165	1,916	64.0	---	---
Total, Other States	1,014	34.7	181	833	1,076	36.0	---	---

Source: Bureau of Fisheries, Fishery Industries of the United States.

a/ Included in the 1929 total are 1922 figures for the Mississippi River area.

b/ Included in the 1933 total are 1931 figures for the South Atlantic and Gulf, the Great Lakes, and the Mississippi River areas.

c/ Not available.

d/ Includes New Hampshire.

e/ Wholesaling as a separate activity in Alaska is negligible.

Number of Members

Primary Producing Division. - The number of members in the Primary Producing Division has never been accurately determined. Most proprietors of vessels and boats own and operate one craft; but there are some who own and operate several, the maximum number under one ownership being about 25. It is estimated by the author that the number of members is approximately 90 per cent of the number of fishing craft. Applying this to the data in Table I, the number of members would be approximately 75,000 in 1929, 69,000 in 1931, and 65,000 in 1933. No estimate is available for 1934.

Processing and Wholesaling Division. - In the Processing and Wholesaling Division there are only a few cases of multi-plant operation, so that the number of members may be taken to be approximately the same as the number of establishments reported by the Bureau of Fisheries (see Table II), with the qualification, mentioned heretofore, that the canning of several species of fish and shellfish, the crushing of oyster shells, and the processing of fish oil were not covered by the Fishery Code proper. It has not been determined how many establishments were engaged in the above-mentioned activities.

Capital Investment

Primary Producing Division. - The capital value of fishing vessels alone in recent years has been estimated by the author at approximately $22,150,000, and the gear used in these vessels at approximately $3,750,000. Data on the investment in boats are not available.

Processing and Wholesaling Division. - Comprehensive data on the capital invested in processing and wholesale establishments are not available.

Volume and Value of Production

Primary Producing Division. - The volume and value of production in the Primary Producing Division is measured by the number of pounds and the sales value of the fish and shellfish caught. Figures for this quantity and value for recent years, by the principal species, are given in Table III. These data cover the United States and Alaska.

TABLE III

Quantity and Value of the Fishery Catch,
by 12 Important Species

(In thousands of pounds and thousands of dollars)

	1929		1931		1933	
	Quantity	Value	Quantity	Value	Quantity	Value
Total, All Species	3,567,277	123,054	2,657,317	77,344	2,908,004a/	60,113a/
Total, 12 Species	2,573,741	80,196	1,897,530	48,515	2,119,511a/	39,164a/
Salmon	584,539	20,464	601,095	12,406	574,066	12,172
Pilchard (California Sardine)	651,802	3,588	300,204	1,185	509,805	1,505
Haddock	261,653	9,142	182,561	5,430	168,613	3,894
Herring	283,356	2,480	137,043	1,537	202,234	1,110
Oysters	152,143	17,074	101,036	10,299	70,808b/	5,715b/
Shrimp	113,263	4,575	99,432	2,850	102,633b/	1,919b/
Cod	116,652	3,541	112,303	2,715	123,998	2,231
Mackerel	122,094	3,277	61,645	2,023	111,152	1,321
Flounders	75,329	3,479	66,750	2,554	60,716	2,1[illegible]3
Tuna	75,524	3,938	60,059	2,726	71,026	2,977
Halibut	55,297	6,413	41,701	2,897	42,639	2,537
Crabs	82,089	2,225	83,701	1,843	81,821	1,680

Source: Bureau of Fisheries, Fishery Industries of the United States.

a/ Estimated in part by the author.

b/ Estimated by the author.

Processing and Wholesaling Division. - The volume and value of fishery products processed in the United States and Alaska in recent years are given in Table IV, with a breakdown by four principal types of products. These figures duplicate to a considerable extent those for volume and value for the Primary Producing Division in Table III. That is, a considerable portion of the value of the processed products is the cost to the processor of fish or shellfish included in the value of the catch.

Competitive Industries

Primary Producing Division. - The Fishery Industry's chief competitor is the meat-packing industry. There is evidence, not yet completely analyzed, which indicates that the prices for fresh and frozen fish obtained by fishermen are rigidly governed by the current prices of meat.

Processing and Wholesaling Division. - The evidence just mentioned seems to indicate that the prices received for non-perishable processed fishery products are also governed by current prices of meat, but that the relati nship is not as close as in the case of fresh and frozen fish.

Principal Products of Fishery Industry Used by Other Industries

The greater part of the products of the Fishery Industry, including both the fresh and frozen fish and shellfish produced by the Primary Producing Division and the products of the Processing and Wholesaling Division, enter directly into distribution channels, without further processing by other industries. However, a large part of the canning of fish and shellfish which is done by the industry as defined by the Bureau of Fisheries was done outside the Fishery Industry as organized under the Code.

By-products of the Fishery Industry are taken and processed by the following industries, all of which, with the exception of the Ocean Pearl Button Industry, had separate codes.

Oyster Shell Crushers Industry
Processed or Refined Fish Oil Industry
Fresh Water Pearl Button Manufacturing Industry
Ocean Pearl Button Manufacturing Industry
Feed Manufacturing Industry
Fertilizer Industry
Paint, Varnish and Lacquer Manufacturing Industry
Soap and Glycerine Manufacturing Industry
Pharmaceutical and Biological Industry

TABLE IV

Volume and Value of Fishery Products Processed in the United States and Alaska, by Type of Product
(In thousands of pounds and thousands of dollars)

Type of Product	1929		1931		1933 a/		1934	
	Volume	Value	Volume	Value	Volume	Value	Volume	Value
Total, All Types b/	---	[illegible],175	---	116,[illegible]	---	107,3[illegible]4	c/	c/
Canned	[illegible],4[illegible]7	101,[illegible]	506,702	[illegible]2,940	5[illegible]5,212	5[illegible],806	6[illegible],[illegible]43	7[illegible],364
Fresh & frozen b/	84,3[illegible]7	14,[illegible]13	139,283	23,076	1[illegible],603	17,294	73,647	[illegible],105
Cured	119,257	1[illegible],1[illegible]1	98,969	12,365	104,310	12,824	c/	c/
By-products	---	25,76[illegible]	---	18,53[illegible]	---	17,466	---	22,480

Source: Bureau of Fisheries, Fishery Industries of the United States; 1934 figures from Statistical Bulletins Nos. 1133 and 1138.

a/ Included in the 1933 data are 1932 figures for the South Atlantic and Gulf and the Great Lakes areas, and 1931 figures for the Mississippi River area.

b/ The value of products processed by fishermen and the value of several kinds of shellfish, particularly shucked oysters and clams and crab meat, are included in 1931 and 1933, but not in 1929 or 1934.

c/ Not available.

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Chapter II

LABOR STATISTICS

Number of Employees

Primary Producing Division. - In a discussion of employment in the Primary Producing Division, the term "employee" must be used in a qualified sense, because relatively few fishermen work for a specified wage rate. The majority of them are compensated by shares in the money received for the catch in which they have participated. Moreover, the proportion of proprietors among fishermen is relatively high --- 60 per cent of the total by the author's estimate; and while these men participate in the distribution of shares, they can not be classified as wage earners in the ordinary sense.

The number of fishermen, including proprietors, in the United States and Alaska in recent years is given in Table V, with separate figures for ten principal states and Alaska. The number shown in this table represents the total engaged during the year; averages for the year or for the season are not available.

Processing and Wholesaling Division. - It has not been possible to get data on the number of employees in processing and wholesale establishments which are strictly applicable to the Industry as it operated under the Fishery Code proper. The figures reported by the Bureau of Fisheries include employees in establishments processing salmon, tuna, shrimp, etc., which were outside the Code. The figures in Table VI have the further limitations that they include small proportions of proprietors, and that both the 1929 and the 1933 data are incomplete. There was certainly not the increase in the number of persons engaged in this Division from 1929 to 1931 that appears on the face of these figures, though the actual decline was probably moderate. No data exist for 1934.

Annual Wages

Primary Producing Division. - The only available data on wages paid fishermen are those obtained in a study of the vessel fisheries, made by the Fisheries Unit of the Research and Planning Division, NRA. These indicate that total earnings of fishermen in this branch of the Primary Producing Division in the United States and Alaska amounted to $21,153,000 in 1929, $9,476,000 in 1933, and $12,826,000 in 1934.

The study also shows that only about 22 per cent of the total number of employees work on vessels. Data on earnings of fishermen in the boat and shore fisheries are not available.

Processing and Wholesaling Division. - Data on the total annual salaries and wages paid in processing and wholesaling establishments in the United States and Alaska in the years 1929, 1931 and 1933 are shown in Table VII, with a breakdown by 10 principal states and Alaska. Figures for 1934 are not yet available. These data include wages paid in fish and shellfish processing establishments that operated outside the Fishery Code proper, and they are also subject to the other limitations mentioned in connection with Table VI. A segregation of the figures for establishments which are primarily processing and for those which are primarily wholesale is shown for 1929, but is not available for the two later years.

TABLE V

Number of Fisherman, a/ by 10 Principal States and Alaska

State	1929 Number	1929 Per Cent of Total	1931 Number	1931 Per Cent of Total	1933 b/ Number	1933 b/ Per Cent of Total	1934 c/ Number	1934 c/ Per Cent of Total
Total, U.S. and Alaska	123,146	100.0	122,775	100.0	117,494	100.0	120,000	100.0
California	6,772	5.6	6,476	5.2	6,158	5.2	6,250	5.2
Florida	9,003	7.3	8,357	6.8	7,957d/	6.8	8,080	6.7
Louisiana	3,709	3.0	3,086	2.5	2,307d/	2.0	e/	---
Maine	5,5[illegible]	4.5	5,3[illegible]	4.4	6,032	5.0	e/	---
Maryland	8,429	6.8	9,558	7.8	8,527	7.3	8,660	7.2
Massachusetts	8,402	6.8	9,150	7.5	8,344	7.1	8,530	7.1
New Jersey	6,009	4.9	5,676	4.6	3,845	3.3	e/	---
Oregon	4,193	3.4	3,467	2.8	3,502	3.0	e/	---
Virginia	10,041	8.2	11,131	9.1	11,615	9.9	11,800	9.8
Washington	9,027	7.3	9,272	7.6	9,013	7.7	9,200	7.7
Alaska	10,189	8.3	8,914	7.3	8,656	7.4	9,433	7.9
Total, 10 States and Alaska	81,367	66.1	80,535	65.6	76,014	64.7	---	---
Total, Other States	41,779	33.9	42,240	34.4	41,480	35.3	---	---

Source: Bureau of Fisheries, Fishery Industries of the United States.

a/ Total number of fishermen engaged during the year on vessels and boats and ashore, including proprietors.
b/ Included in the 1933 data are 1932 figures for the South Atlantic and Gulf and the Great Lakes areas, and 1931 figures for the Mississippi River area.
c/ Estimated by author of this report.
d/ 1932 figure.
e/ Not available.

TABLE VI

Number of Persons a/ Engaged in Fishery Processing and Wholesale Establishments, by 10 Principal States and Alaska

State	1929: Processing and Wholesale Establishments, Number	1929: Processing and Wholesale Establishments, Per Cent of Total	1929: Processing Establishments, Number	1929: Wholesale Establishments, Number	1931: Processing and Wholesale Establishments, Number	1931: Processing and Wholesale Establishments, Per Cent of Total	1933 b/: Processing and Wholesale Establishments, Number	1933 b/: Processing and Wholesale Establishments, Per Cent of Total
Total, U.S. and Alaska	64,015	100.0	42,440	21,575	71,912	100.0	70,324	100.0
California	7,788	12.2	6,276	812	7,574	10.5	7,676	10.8
Florida	1,874	2.8	437	1,337	2,363	4.[illegible]	c/	--
Louisiana	2,037	3.2	1,665	372	3,495	4.9	c/	--
Maine	6,722	10.5	6,350	372	5,572 d/	7.7	4,637 d/	6.5
Maryland	4,110	6.4	530	3,580	7,412	10.3	6,435	9.1
Massachusetts	3,678	5.7	1,522	2,156	3,383	4.7	3,688	5.2
New Jersey	1,404	2.2	181	1,223	1,353	1.9	1,656	2.3
Oregon	990	1.5	872	118	909	1.3	991	1.4
Virginia	3,847	6.0	929	2,918	4,921	6.8	5,161	7.3
Washington	2,899	4.5	2,456	443	3,163	4.4	3,326	4.7
Alaska	16,646	26.0	16,646	e/	11,995	16.7	11,756 f/	16.6
Total, 10 States and Alaska	51,995	81.2	38,614	13,381	52,656	73.2	---	--
Total, Other States	12,020	18.8	3,826	8,194	19,256	26.8	---	--

Source: Bureau of Fisheries, Fishery Industries of the United States.

a/ Proprietors, salaried persons, and wage earners.

b/ Included in the 1933 data are 1931 figures for the South Atlantic and Gulf, the Great Lakes, and the Mississippi River areas.

c/ Not available.

d/ Includes New Hampshire.

e/ Wholesaling as a separate activity in Alaska is negligible.

f/ Includes an unknown number of wage earners who were hired and paid by labor contractors.

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TABLE VII

Annual Salaries and Wages Paid in Fishery Processing and Wholesale Establishments, by 10 Principal States and Alaska

(In thousands)

State	1929 a/				1931		1933 b/	
	Salaries and Wages Paid In:							
	Processing and Wholesale Establishments		Processing Establishments	Wholesale Establishments	Processing and Wholesale Establishments		Processing and Wholesale Establishments	
	Amount	Per Cent of Total	Amount	Amount	Amount	Per Cent of Total	Amount	Per Cent of Total
Total, U.S. and Alaska	43,036	100.0	$21,914	$21,122	$37,120	100.0	$31,759	100.0
California	6,113	14.2	4,670	1,443	4,327	11.7	4,558	14.4
Florida	1,075	2.5	328	747	819	2.2	c/	--
Louisiana	994	2.3	631	363	744	2.0	c/	--
Maine	2,120	4.9	1,673	447	1,336 d/	3.7	1,020 d/	3.2
Maryland	2,757	6.4	1,164	1,593	1,709	4.6	1,357	4.3
Massachusetts	5,491	12.8	1,978	3,513	4,532	12.3	3,673	11.6
New Jersey	664	1.5	128	536	1,091	2.9	1,097	3.5
Oregon	892	2.1	764	128	637	1.7	649	2.0
Virginia	1,569	3.6	435	1,134	1,073	2.9	1,010	3.2
Washington	2,156	5.0	1,426	730	1,786	4.8	889	2.8
Alaska e/	7,108	16.5	7,108	f/	4,899	13.2	3,289	10.4
Total, 10 States and Alaska	30,939	71.9	20,355	10,534	23,023	62.0	---	--
Total, Other States	12,097	28.1	1,559	10,533	14,097	38.0	---	--

Source: Bureau of Fisheries, Fishery Industries of the United States.

a/ Included in the 1929 data are 1922 figures for the Mississippi River area.

b/ Included in the 1933 data are 1931 figures for the South Atlantic and Gulf, the Great Lakes, and the Mississippi River areas.

c/ Not available.

d/ Includes New Hampshire.

e/ Part of the money expended for labor in Alaska was retained by the contractors who hired the laborers.

f/ Wholesaling as a separate activity in Alaska is negligible.

Average Hourly Wage Rate

Primary Producing Division. - Because of the nature of their work, fishermen are practically never remunerated on an hourly wage basis.

Processing and Wholesaling Division. - Data on the average hourly wage rate paid workers in processing and wholesale establishments are not available. It is believed, furthermore, that if it were possible to compute such an average it would not be representative of the Division as a whole, because only a small number are paid on an hourly basis.

Average Hours Worked per Week

Primary Producing Division. - Fishermen's working hours are very irregular, being governed by such changeable factors as climatic and biological conditions. No record of the hours is ever kept and no regulation was attempted under the Code.

Processing and Wholesaling Division. - Data on the average hours worked per week in many of the processing and wholesale sub-divisions were collected by the Research and Planning Division of NRA through special surveys and from testimony at public hearings. These data, which apply to pre-code conditions, are shown in Table VIII, by sub-divisions of the Processing and Wholesaling Division.

Average Weeks Worked per Year

Primary Producing Division. - Data collected in the study of the earnings of fishermen in the vessel fisheries, previously referred to, indicate that crews on vessels who were paid on a time basis worked an average of 26 weeks during 1933. The average for the Primary Producing Division as a whole in that year was probably between 30 and 35 weeks. Since 1933 was a year of severe depression in this Industry, however, the number of weeks worked has usually been greater. The normal average is probably about 40 weeks.

Processing and Wholesaling Division. - The data of the Bureau of Fisheries indicate that employees in processing and wholesale establishments work, on an average, 24 or 25 weeks a year. This indicates the tendency to extreme seasonality in this part of the Industry. In establishments which are engaged primarily in wholesaling, however, a force of workers is normally employed throughout the year.

Child Labor

Primary Producing Division. - The number of workers under 16 years of age in the Primary Producing Division is not known. The only instances, however, are where owners of fishing craft take their young sons out to assist in the work. The danger involved may at times be considerable, but the conditions are quite different from those ordinarily associated with child labor.

Processing and Wholesaling Division. - Figures on child labor in processing and wholesale establishments are also lacking. The number of children under 16 years of age is believed to be small, however, as the work is in general too heavy and requires too much skill to make their employment practicable.

TABLE VIII

Pre-Code Weekly Hours of Labor in Typical Fishery Preparing and Wholesaling Subdivisions, First Half of 1933

Subdivision	Average Hours per Week	
	Office Employees	Plant Employees
Preparing and Wholesaling Trades		
General:		
New England	39.9	45.2
Middle Atlantic	45,9	46.6
Midwest	a/	56.0
Southeast	48.0	57.5
Gulf South	a/	60.0
Northwest and Alaska	43.0	49.1
Southwest	a/	55.0
Specialized:		
Oyster	42.6	---
Shuckers	---	32.2 b/
Others	---	46.9
Blue Crab	52.0	[illegible]
Lobster	46.0	50.5
Sponge	a/	54.0
Alaska Herring	43.0	40.1
Secondary Processing Industries		
Oyster Shell Crushing	a/	42.
Processed or Refined Fish Oils	a/	52.

Source: Questionnaire data furnished by establishments and testimony of industry representatives at Code hearings, contained in NRA, Division of Research and Planning, reports prepared by John R. Arnold.

a/ Not available; number of office employees small.

b/ Estimated on the basis of data for shuckers' piece work in 17 typical establishments.

Chapter III

MATERIALS - RAW AND SEMI-PROCESSED

Principal Materials Used by the Industry

Primary Producing Division. - As the function of the Primary Producing Division is the catching of fish, it uses no raw materials in the production of a finished product. Ice and containers, however, are used on a large scale.

Processing and Wholesaling Division. - In the Processing and Wholesaling Division the principal materials used are: fresh fish and shellfish, tin cans, ice, and containers (for shipping perishable products).

Expenditures for Materials

Processing and Wholesaling Division. - There are no detailed figures to show the amount spent by the Processing and Wholesaling Division for its principal materials individually. An indication of the total expenditure on this account, however, may be obtained from the data of the Census of Manufactures for fish canning and preserving establishments in the continental United States. In 1929, 348 of these establishments reported the cost of materials, containers, fuel and purchased electric energy as $53,239,911; in 1931, 304 establishments gave the cost of the same items as $28,403,818; while in 1933, 264 establishments reported $26,248,000. Establishments whose products were valued at less than $5,000 for the year are not included in these figures.

Source of Materials

Processing and Wholesaling Division. - Every state that has within its borders or contiguous to it salt or fresh waters supporting usable species of fish or shellfish is a source of raw material for the Processing and Wholesaling Division of the Industry. The volume and the value of the fish caught in ten principal states and Alaska are given in Table X in Chapter IV; the volume and value of imported fishery products, which come principally from Canada, are given in Table IX, below. All but a trifling proportion of the volume of these products is handled by the Processing and Wholesaling Division at least once as raw or semi-processed material. The processing industries alone utilize some 35 or 40 per cent of the total volume caught.

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TABLE IX

Volume and Value of General Imports of Fishery Products, by Kind of Product
(In thousands)

Product	Unit of Volume	1929		1931		1933		1934	
		Volume	Value	Volume	Value	Volume	Value	Volume	Value
Total Value, All Fishery Products	----	---	$53,280	----	$40,883	---	$27,090	---	$29,559
Fish, fresh or frozen	pound	193,211	15,787	116,708	10,557	118,665	7,650	137,737	9,118
Fish, canned, preserved, etc.	pound	176,346	23,985	1[illegible],094	17,750	169,746	14,498	148,365	14,003
Fish oils	gallon	17,983	8,971	25,310	11,0[illegible]5	6,463	2,366	8,019	3,775
Shells, unmanufactured	pound	17,593	2,918	7,[illegible]	1,384	9,503	1,186	9,010	973
Sponges and manufactures	pound	965	1,183	[illegible]15	715	465	375	479	338
Pearl or shell buttons	gross	830	436	954	432	1,030	326	849	301
Fish scrap and fish meal	pound	a/	a/	a/	a/	59,418	689	79,907	996

Source: Bureau of Foreign and Domestic Commerce, Foreign Commerce and Navigation of the United States.

a/ Not available.

Expenditures for Machinery and Equipment

Primary Producing Division. - The machinery and equipment used in the Primary Producing Division consist of marine engines and fishing gear, such as nets, dredges, pots, traps, hooks, tongs, etc. There are no data available on expenditures for these items. Most of this machinery and equipment is made in the United States, but there has been a considerable consumption of imported cordage for use in nets.

Processing and Wholesaling Division. - No data are available on expenditures for equipment and machinery by the Processing and Wholesaling Division.

Percentage of Value of Product Represented by Cost of Materials

Processing and Wholesaling Division. - For the fish canning and preserving establishments reporting in the Census of Manufactures, the cost of materials, containers, fuel and purchased electric energy averaged 66 per cent of the value of products in the years 1929, 1931 and 1933. The available data do not disclose the proportion of this percentage which is accounted for by raw material and containers.

Chapter IV

PRODUCTION AND DISTRIBUTION

Volume and Value of Production by States

Primary Producing Division. - Data on the volume and value of the catch of fish and shellfish, which represents "production" in the Primary Producing Division, are given for recent years in Table X, by ten principal states and Alaska.

Processing and Wholesaling Division. - Data on the value of processed fishery products, by ten principal states and Alaska, are given for 1929, 1931 and 1933 in Table XI. Volume figures can not be shown because of the varying units of measurement. Data for 1934 are not yet available.

Interstate Shipments of Fishery Products

It has not been possible to collect exact data on the volume or value of products shipped outside the state of origin. However, an indication of the extent of interstate shipments may be had from the following estimates, 1/ compiled by the author, which refer to the shipments of both raw and processed fish, by geographic regions.

1. New England. - From 70 to 80 per cent of the fish landed in New England ports is shipped out of this region.

2. New York City. - Approximately 90 per cent of the fishery products handled by the processing and wholesale establishments in the New York metropolitan area originate outside of New York State. About 15 or 20 per cent of these products are reshipped to other states.

3. Philadelphia. - Practically all the fishery products consumed in the Philadelphia metropolitan area originate outside of Pennsylvania.

4. Baltimore. - About 50 per cent of the fishery products handled in Baltimore originate outside of Maryland.

5. Florida. - Approximately 80 per cent of the fishery products of Florida, the chief producing state in the South Atlantic and Gulf area, is shipped out of the state. The proportion shipped out of the other Southern coast states is smaller, but in all cases considerable.

6. Mid-West. - All the mid-western states except Ohio, Michigan, Wisconsin and Minnesota draw the largest part of the fishery products they consume from outside their own borders. Substantial proportions of the fish landed at the ports of the Great Lakes are shipped out of the states concerned.

7. California. - The greater part of the fishery catch of California is used in local processing establishments. About 80 or 90 per cent of the products of these establishments, however, are shipped outside of the state.

1/ Percentages refer to volume.

TABLE X

Volume and Value of Fish Catch, by 10 Principal States and Alaska
(In thousands of pounds and thousands of dollars)

State	1929			1931			1933 a/			1934 b/	
	Volume	Value		Volume	Value		Volume	Value		Volume	Value
		Amount	Per Cent of Total		Amount	Per Cent of Total		Amount	Per Cent of Total		
Total, U.S. and Alaska	3,567,277	123,054	100.0	2,657,317	77,344	100.0	2,899,048	60,218	100.0	3,350,000	79,500
California	356,926	12,370	10.5	430,997	7,108	9.2	706,899	7,094	11.8		
Florida	145,953	6,120	5.0	84,054	3,593	4.6	103,290c/	2,973c/	4.9		
Louisiana	61,920	2,765	2.2	45,704	1,330	1.7	48,340c/	1,181c/	2.0		
Maine	169,939	4,897	4.1	116,235	3,443	4.5	98,498	2,307	3.8		
Maryland	63,387	4,295	3.5	66,633	2,706	3.5	55,362	1,734	2.9		
Massachusetts	447,689	18,052	14.7	355,334	12,951	16.7	373,670	9,507	15.8		
New Jersey	110,001	8,731	7.1	92,846	5,854	7.6	93,263	2,146	3.6		
Oregon	25,284	2,605	2.1	25,819	1,282	1.7	24,533	1,210	2.0		
Virginia	211,285	7,286	5.9	226,637	4,722	6.1	217,018	3,327	5.5		
Washington	152,224	9,563	7.8	140,491	5,121	6.6	128,730	5,684	9.4		
Alaska	611,285	12,285	10.0	598.125	10,043	13.0	630,744	9,158	15.2		
Total, 10 States and Alaska	2,855,893	89,469	72.7	2,183,375	58,153	75.2	2,480,347	46,321	76.9	---	---
Total, Other States	711,384	33,585	27.3	473,942	19,1[illegible]	24.8	418,701	13,897	23.1	---	---

Source: Bureau of Fisheries, Fishery Industries of the United States.

a/ Included in the 1933 data are 1932 figures for the South Atlantic, and Gulf and the Great Lakes areas, and 1931 figures for the Mississippi River area.

b/ 1934 figures estimated by the author. Data for the states and Alaska are not available.

c/ 1932 figures.

TABLE XI

Value of Processed Fishery Products, by 10 Principal
States and Alaska
(In thousands)

State	1929 a/		1931			1933 b/		
	Amount	Per Cent of Total	Amount		Per Cent of Total	Amount		Per Cent of Total
Total, U. S. and Alaska	$138,175	100.0	$116,919		100.0	$107,384		100.0
California	30,981	22.4	16,978		14.5	18,394		17.1
Florida	1,866	1.3	1,177		1.0	1,296	c/	1.2
Louisiana	4,950	3.6	3,160		2.7	2,808	c/	2.6
Maine	9,293	6.7	4,379	d/	3.7	3,754		3.5
Maryland	1,084	.8	4,147		3.5	3,767		3.5
Massachusetts	6,030	4.4	10,747		9.2	8,707		8.1
New Jersey	1,126	.8	3,104		2.7	3,054		2.8
Oregon	5,659	4.1	3,200		2.7	3,359		3.1
Virginia	1,804	1.3	3,758		3.2	3,478		3.2
Washington	13,859	10.0	8,310		7.1	7,020		6.5
Alaska	45,425	32.9	31,683		27.1	31,100		29.0
Total, 10 States and Alaska	122,077	88.3	90,643		77.4	86,737		80.8
Total, Other States	16,098	11.7	26,276		22.5	20,647		19.2

Source: Bureau of Fisheries, Fishery Industries of the United States.

a/ 1929 data are not strictly comparable with 1931 and 1933 data because they do not include the value of products processed by fishermen and the value of several kinds of shellfish, particularly shucked oysters and clams, and crab meat.

b/ Included in the 1933 data are 1931 figures for the South Atlantic and Gulf, the Great Lakes, and the Mississippi River areas.

c/ Combination of 1931 and 1933 data.

d/ Includes New Hampshire.

8. Washington and Oregon. - Of the fresh, frozen and cured fish produced in the states of Washington and Oregon, about 75 per cent is shipped outside of these two states. Of the fish and shellfish canned in these two states, 95 per cent is shipped elsewhere.

9. Alaska. - All but a trifling fraction of the fish and shellfish landed in Alaska is shipped out of the Territory.

Sales to Wholesalers

Primary Producing Division. - Nearly all the output of the Primary Producing Division is sold either to wholesalers or processors in the Processing and Wholesale Division. The only important exception is the direct sale for local consumption in or near the port of landing. In certain summer resorts the volume of such business is considerable, but for the country as a whole it is insignificant.

Processing and Wholesaling Division. - Most of the output of fishery processing establishments in sold to the general grocery wholesale trade.

Number of Wholesale and Retail Establishments Handling Products of the Industry

Wholesale. - The number of establishments engaged exclusively in the wholesaling of fishery products in 1929 was reported by the Bureau of Fisheries as 1,998 (see Table II). Most of the processing establishments, other than canneries, however, and even some of the latter, also do a wholesale business in unprocessed products. The number of establishments which wholesale fishery products as a minor part of their business is not obtainable. A large part of the volume of cured fish and shellfish and a still larger proportion of the canned products are distributed by the wholesale grocery trade; but the latter handles practically no fresh fish.

Retail. - The total number of establishments engaged in the retail distribution of fish, the greater part of which is handled by the retail grocery trade, is not available. The number of retail establishments specializing in the sale of fishery products was reported in the Census of Distribution as 6,077 in 1929.

Exports of Fishery Products

The volume and value of fishery products exported from the continental United States in recent years are given in Table XII, by type of product.

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TABLE XII

Volume and Value of Exports of Fishery Products, by Kind of Product
(In thousands)

Product	Unit of Volume	1929		1931		1933		1934	
		Volume	Value	Volume	Value	Volume	Value	Volume	Value
Total Value, All Products		---	$24,288	---	$12,307	---	$8,512	---	$14,032
Fish, fresh or frozen, including shellfish	pound	18,179	2,510	18,099	1,989	16,294	1,458	17,349a/	1,461a/
Fish, canned, preserved, etc.	pound	195,130	20,991	96,234	9,391	64,072	5,917	98,826	10,542
Fish oils	pound	1,120	95	1,792	149	5,849	163	6,364	194
Sponges	pound	124	152	68	85	72	68	33	93
Oyster shells	pound	35,867	144	119,143	511	127,680	385	114,699	360
Fish meal for feed	pound	b/	b/	6,605	155	17,736	346	60,995	1,172
Pearl or shell buttons	gross	242	96	96	27	792 c/	175 c/	753 c/	210c/

Source: Bureau of Foreign and Domestic Commerce, Foreign Commerce and Navigation of the United States.

a/ Includes a small amount of dried shellfish.

b/ Not available.

c/ Includes other but .

Advertising

Primary Producing Division. - Only those members of the Primary Producing Division who operate wholesaling or processing establishments do any advertising, and the little they do is restricted mainly to trade-marked canned and packaged goods.

Processing and Wholesaling Division. - Relative little advertising is done by wholesale establishments, but processors do a considerable amount, principally in magazines and newspapers.

Shifts in Centers of Production

There have been shifts of major importance in both the primary production and the processing of fish and shellfish since the beginning of the present century. They have been slow, however, and there is no clear evidence of important changes since 1929. The most important of the earlier shifts was from the Atlantic and Gulf coasts to the Pacific coast, in which California, Oregon, Washington and Alaska gained at the expense of all of the Atlantic and Gulf coast states.

Productive Capacity

Primary Producing Division. - The productive capacity of the Primary Producing Division, as measured by the number of documented or registered craft, is never fully utilized. The last Census of Water Transportation, taken in 1926, indicated that about 13 per cent of all fishing vessels were inactive during that year and in 1916. The author estimates the corresponding proportion in 1933 at about 27 per cent.

Processing and Wholesaling Division. - There are no statistics on the productive capacity of processing establishments. It is known, however, that there has been a substantial unused capacity in the sardine canning industry in New England, in the fresh oyster industry, and in some others.

Limit of Natural Supply of Fish

In general, the fisheries operating in enclosed or semi-enclosed waters, like the Great Lakes and Chesapeake Bay, and those engaged in taking sessile species like oysters, and river-spawning species like salmon, sturgeon, and shad, have encroached more or less seriously on the natural supply. In the case of most commercial species of pelagic or open ocean fish, however, there is at present no conclusive evidence of such encroachment.

Chapter V

TRADE PRACTICES

Unfair Trade Practices Prevalent Prior to the Code

Primary Producing Division. - It was claimed by members of the Primary Producing Division that the following unfair trade practices were particularly dettimental to the well-being of the Industry:

1. Destructive Price Cutting. - The prices of meat reached a long time cyclical peak in 1928 and 1929. The fall in the prices of a number of important fishery products from these years to the latter part of 1932 and early 1933 more than reflected the drop in meat prices. This long time cyclical movement in meat prices is more severe than the short time cyclical movement in general commodity prices, though in the case under discussion the two happened to coincide in point of time.

As the earnings of about 80 per cent of the persons engaged in the primary production are directly dependent on the prices received for the fish they catch, owing to the system of compensation by shares, these earnings were reduced, in 1932 and 1933, below any accepted living standard. Repairs and upkeep had to be skimped, and marine insurance, in a large number of cases, was allowed to lapse. The situation was better in 1934, but even in that year the fisheries of most areas of the country failed to earn depreciation.

In view, however, of the relationship between the price of meat and the price of fish, previously referred to, it is the author's belief that coercive action under the authority of the Code could not have done much to remedy the price situation without some corresponding measure of control of meat prices.

2. Excess Catches. - The natural course followed by the owner or captain of a fishing craft is to land from each trip the maximum practicable quantity of fish or shell-fish. From 1929 to 1933 this practice tended to accentuate the fall in prices and led, at times, to the dumping of quantities of fish at ports of landing.

3. Maladministration of Share Agreements. - Complaints were heard at public hearings of financial abuses in connection with the administration of "lays," or share agreements. It was charged, for example, that rebates allowed by dealers on fuel oil had been, in some cases, kept by captains, instead of being credited to all the persons sharing in the "lay."

Processing and Wholesaling Division. - Members of the Processing and Wholesaling Division reported that the following unfair trade practices had been particularly obnoxious:

1. Destructive Price Cutting. - The downward price trend, previously mentioned, had resulted in serious losses to processing and wholesaling establishments, and their working capital had been heavily cut into. This impairment was claimed to have gone so far that the available working capital had been insufficient to handle the increase in the volume of business which accompanied the price recovery of 1934 and 1935.

2. Consignment Shipments. - The perishability of raw fish, the small size of the majority of primary producing enterprises, and the distances at which some of the latter are located from the main distributing and consuming centers had led to an extensive use of consignment shipments. It had come to be a general belief on the part of both primary producers and distributors that this method of doing business had helped to accentuate the decline in prices from 1929 to 1933. It has not been possible to determine how much basis in fact this belief may have had.

3. Excessive Allowances on Customers' Claims. - Because of the perishability of most fishery products, disputes with regard to the quality and condition of shipments arise very easily. There was a widesspread complaint in the general wholesaling trades that many such claims were made without sufficient reason, and sometimes after undue delay, to extricate purchasers from difficulties arising from demoralizing of the markets.

4. Reversal of Communication Charges. - The perishability of fishery products leads to an extensive use of telegrams and of long distance telephone calls in inquiring as to prices and otherwise initiating transactions. The practice of attracting business from competitors by allowing prospective customers to reverse such charges was claimed to have reached the proportions of an abuse.

5. Diversion of Brokerage Charges. - There was extensive complaint of the practice of accepting orders subject to an understanding that the fee or commission customarily paid to a broker should be credited wholly or in part to the customer. Such diversion constituted, in effect, a reduction in price. Compl ints regarding it were quite general in the Processing and Wholesaling Division, but were particularly stressed in connection with the distribution of canned fish and shellfish.

6. Competition of Truckers. - In some parts of the United States, particularly the South and Middle West, there has grown up in recent years an extensive distribution of fishery products by truckers. As a rule these operate single vehicles and have no fixed places of business. They buy directly from fishermen and distribute over radii, in some instances, of several hundred miles. They sell direct to consumers or to retail stores and in some cases to secondary wholesalers at inland points. As a result they have cut severely into the business of the established wholesalers at the principal landing and distributing centers.

The complaints of the latter were based on assertions that the trucking enterprises were in many cases irresponsible and of the fly-by-night type, and that their business wasto a great extent obtained by the cutting of prices to levels below their true cost of operation.

7. Unsanitary Handling. - The unsanitary handling of fish had had an effect in diverting consumer demand away from the products of the Industry. This was especially true in inland areas of the country, where a taste for fish and shellfish had never been solidly established.

Unfair Trade Practices Now Prevalent

The unfair trade practices described above are believed to be still prevalent, with the qualification that since the Spring of 1933 the trend of the prices of fishery products has been upward, so that destructive price cutting has not been so important an issue.

Chapter VI.

GENERAL INFORMATION

Early Developments in the Industry 1/

The establishment of the Fishery Industry goes back to the first settlement of the United States. Seafood, especially shellfish, played a large part in the diet of the Indian tribes of the Atlantic and Gulf coasts; and the early colonists, faced with the difficulties of establishing themselves as farmers and stock breeders, imitated their primitive predecessors in this respect. Early visitors from Europe commented on the extensive consumption of sea foods.

The development of the New England groundfishery (the taking of cod and haddock on the banks off Nova Scotia and Newfoundland) was accelerated in Colonial days by the development of an export trade in salt fish from the North Atlantic ports of the United States to the West Indies and southern Europe.

In the middle of the nineteenth century the menhaden industry came into existence on the Middle and South Atlantic coasts. The product of this industry, in imitation of an Indian custom, supplied the first important domestic commercial fertilizer, when the imported supply of guano from the islands off the coast of South America began to fail.

These old established fisheries of the Atlantic and Gulf coasts are still prominent, though in recent years their relative importance has diminished. The settlement of the inland states far outran the facilities for the distribution of fresh fishery products; and by the end of the nineteenth century a substantial proportion of the population had almost ceased to be consumers of such foods. The migration from the interior of the country back to the eastern cities, as the latter expanded, tended to cut down the per capita demand for fishery products in the latter centers. The pollution of the waters near these cities by industrial and other wastes seriously affected the supply and the cost of some species.

Recent Developments 2/

Along with this decline in the Atlantic and Gulf fisheries there came, after the beginning of the present century, a rapid development in the fisheries of the Pacific coast. After the collapse of the Klondike gold rush the fisheries of Alaska became the principal recourse for making a livelihood in that territory. The development of the salmon canning industry of Alaska and of the Puget Sound and Columbia River regions started in the 1880's; but this industry for the most part, and the California sardine and tuna and the Alaska herring industries in their entirety, are creations

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1/ This discussion of early developments applies to both the Primary Producing and the Processing and Wholesaling Divisions.

2/ The discussion of recent developments applies to both the Primary Producing and the Processing and Wholesaling Division

of the last twenty or twenty-five years. The great increase in the Pacific Coast population during this period has of course created a substantial market for fresh fish. In the case of the Pacific Northwest the improvement of transportation facilities has made possible a substantial trade with the Middle West and even with the Atlantic Coast in fresh and frozen halibut and salmon.

While the fisheries of the Atalntic and Gulf coasts have for the most part declined relatively during the past thirty years, there has been a considerable development in the fisheries of Florida, along with the increase in the population of the state and the development of facilities for shipping its products to the North and Northwest.

Nature of the Operations of the Industry

Primary Producing Division. - The operations of the members of the Primary Producing Division consist in catching the fish and shellfish and in landing them at the ports of operation. At the latter, in most instances, they pass immediately into the hands of wholesalers or processors.

Processing and Wholesaling Division. - The members of the Processing and Wholesaling Division fall, with respect to the nature of their operations, into two rather distinct groups -- the wholesaling and preparing trades and the processing industries. The operations of the former consist in the assembling of fresh fish and shellfish in the ports of landing or in other centers, and in distributing them to the secondary wholesale and retail trade throughout the country. These establishments also do much simple processing, such as cleaning, packing in ice for shipment, shucking oysters, picking crab meat, and heading and cooking shrimp.

The processing establishments, the majority of which are located at ports of landing where they buy direct from the fishermen, can and cure fish. The curing is done by drying, salting, pickling, and smoking.

Trade Associations

Primary Producing Division. - The fishery producing industry has been an unfavorable field for the development of association and cooperative activities. Most of the associations that existed before the establishment of NRA had little influence or vitality. There was a tendency for them to be dominated by small groups of large concerns, which combined the operation of fishing fleets with wholesale or processing operations.

The first incentive to trade association in many branches of the fisheries was supplied by NRA; and though the discontinuance of the Code has greatly retarded this movement, something of value has probably remained. An Act of Congress entitled, "An Act Authorizing Associations of Producers of Aquatic Products," passed in the Spring of 1934, was designed to promote cooperative fishermen's Organizations. Up to the present, however, the movement has not gone very far.

Processing and Wholesaling Division. - The remarks just made with regard to trade organization in the Primary Producing Division apply also, but to a less extreme degree, to the wholesale trades. The principal canning

industries had strong organizations or were affiliated with the National Canners Association.

Relationship Between Labor and Management

Primary Producing Division. -- Several factors have tended to prevent the development of capital-labor controversies of the ordinary type in the fishery producing industry. The enterprises are for the most part small, the proportion of entrepreneurs is large, and most of them are drawn from the same social class and the same communities as the rank and file of the fishermen. In some cases fishermen who do not own vessels or boats have interests in the gear. About eighty per cent of all fishermen, moreover, work on shares. Taken together, these conditions modify the employee status in the fisheries extensively, and tend to render labor controversies in the ordinary sense unnecessary. The fact that fishery products are so perishable, finally, has made it relatively easy for discontented employees to obtain concessions by brief and informal intermissions of their work.

Between the fishermen operating the large groundfish fleets of New England and their employees, and in a few parallel cases in other parts of the country, something like the ordinary capital-labor relationship exists. This is, however a rather recent development.

Processing and Wholesaling Division. -- The relationship between labor and management in this part of the Industry is to a great extent the same as in the Primary Producing Division, as the enterprises are for the most part small, and the perishability of the products handled has a similar effect. In the large scale canning industries, however, and in the general preparing and wholesale trades of the big cities, particularly New York, there have been labor controversies and strikes of the ordinary type.

Gross and Net Income

Primary Producing Division. - Questionnaire data collected by the author indicated that the average gross income per fishing vessel, after paying operating expenses and fishermen's compensation, but before deducting upkeep, insurance, taxes, other overhead charges, and depreciation, was $8,342 in 1929, $4,340 in 1933, and $5,873 in 1934. The same data put the average annual overhead expense and depreciation per vessel at $8,139, with little change from 1929 to 1934.

These figures indicate a heavy average loss to owners of fishing vessels in 1933, and a considerable though smaller loss in the year following. In 1933 there was a loss, on an average, in all the main areas, and in 1934 in all except California. A minority of individual vessels, of course, made a profit in both years. The relative improvement in 1934 is believed to be entirely the result of the recovery in the prices of fishery products, following the recent upward movement in the price of meat.

Data on the financial returns in the boat fisheries are not available.

Processing and Wholesaling Division. -- At present no satisfactory data exist on income in this Division of the Industry.

Effect of the Code on the Industry

The primary advantage of the code system for the primary producing industry and the wholesale trades lay in the fact that it provided them for the first time with a systematic framework of industrial organization. The psychology of these industries was such that an organization of the sort would have been exceedingly slow to develop without the incentive provided by the NRA legislation and the expressed wish of the government.

The code system did not last long enough to permit these industries to derive from it the benefits that should ultimately have accrued. The provisions of some of the codes, moreover, were not as well suited to the industry's real problems as they would have been if the system had been developed more gradually and experimentally. The need for organization, however, still exists.

In the fish and shellfish canning industries the conditions affecting the operation of the Code differed comparatively little from those normal to the manufacturing industries as a class. In the Canned Salmon and in both the California and the New England Sardine Industries the Codes were felt to have worked tolerably well and to have had beneficial effects. In abolishing the use of Oriental contract labor in the Alaska canneries the Canned Salmon Code effected an important labor reform which, having proved financially beneficial to the operating companies, seems likely to be permanent.

Trade Marks

Processing and Wholesaling Division. - The products of the fish and shellfish canning industries are generally trademarked, as are also some cured products. The trademarking of non-processed products of the preparing and distributing trades, however, is practically impossible.

Effect of Imports on the Industry

Primary Producing Division. - The fisheries of New England, the Great Lakes, and the Pacific Northwest have been adversely affected by the importation of Canadian products. Complaints have been made particularly in connection with the importation of lobsters into Boston, of fish from the Canadian waters of the Great Lakes and from the interior lakes of Canada into the American lake ports, and of salmon and halibut from British Columbia in competition with shipments from Washington and Oregon. In the case of lobsters and of fresh water fish particularly the importations represent substantial items in the domestic consumption. More recently imports of frozen fish from Japan have attained considerable volume.

Processin and Wholesaling Division. - The preparing and wholesaling trades are of course affected by the foreign competition described in the preceding paragraph, except insofar as they handle the importations themselves. The latter is the case with some of the products in question, but not with all.

In the case of the processing industries the competition of canned fish and shellfish and of fish meal from Japan is more important than the Canadian competition. These importations have given rise to numerous complaints and investigations on the part of the Tariff Commission and of other authorities.

APPENDIX

Names and Code Status of the Divisions of the Fishery Industry
May 27, 1935

Division	Code Status
Fisheries Proper	
Regular Food Fisheries: 1/	
Atlantic Mackerel	Supplementary Code Approved
Oyster	" " "
Blue Crab	" " "
Great Lakes	Supplementary Code Heard, but not approved
Alaska Herring	Supplementary Code Heard
Pacific Halibut	" " "
Pacific Crab	" " "
Florida	" " "
Lobster	" " "
Inedible Products Fisheries:	
Menhaden	National Code Only
Sponge	" " "
Oyster Cultivating Subindustry	Supplementary Code Approved
Trout Farming	" " "
Preparing and Wholesaling Trades	
General, with Geographical Subdivisions:	
New England	Supplementary Code Approved
Middle Atlantic	" " "
Midwest	" " "
Southeast	Supplementary Code Heard, but not approved
Gulf South	Supplementary Code Heard Approved
Northwest and Alaska	Supplementary Code Approved
Southwest	Supplementary Code Heard, but not approved
Specialized: 2/	
Oyster	Supplementary Code Approved
Crab	
Blue	Supplementary Code Approved
Pacific	Included under Northwest and Alaska Preparing and Wholesaling Code
Lobster	Supplementary Code Approved
Sponge	" " "
Alaska Herring	Supplementary Code Heard, but not approved
Specialized Processing Subindustries	
Canning:	
Salmon	Canned Salmon Code
Sardine	
New England	Supplementary Code Approved
California	" " "

Division	Code Status
Specialized Processing Subindustries (Continued)	
Tuna	Canning Code
Clam Products	" "
Oyster	" "
Shrimp	" "
California Mackerel	Supplementary Code Heard, but not approved
Alaska Crab	Included under Northwest and Alaska Preparing and Wholesaling Code
Reduction: 3/	
Sardine	Supplementary Code Approved
Alaska Herring	Supplementary Code Heard, but not approved
Menhaden	National Code Only
Secondary Processing Subindustries	
Oyster Shell Crushing	Oyster Shell Crushers Code
Processed or Refined Fish Oil	Processed or Refined Fish Oil Code

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1/ Only the fisheries for which supplementary Codes reached public hearing are listed under this head; the total number is much larger.

2/ Only the subindustries of this group for which specific supplementary Codes reached public hearing are listed under this head.

3/ A reduction plant is engaged in converting a fishery product into meal and oil, as distinct from products for human consumption. The raw material may be by-products of canning, or the reduction plant may operate independently, and utilize whole fish.